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Name of Appellant, assignee or registered representative

Signature

November 18, 2003

Date of Signature

PATENT  
Case No. PHN 14,491  
(7790/163)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

RENATE M. SOMBROEK

Serial No.: 08/704,400

Filed: AUGUST 27, 1996

Title: A SYSTEM FOR SPEED ADAPATIVE  
POSITIONING ON A CURSOR

Examiner: BRIER, JEFFREY

Group Art Unit: 2672

APPEAL BRIEF

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Appellant herewith respectfully presents a Brief on Appeal as follows:

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1. REAL PARTY IN INTEREST

The real party in interest is Koninklijke Philips Electronics N.V., a corporation of The Netherlands having an office and a place of business at Groenewoudseweg 1, Eindhoven, Netherlands 5621 BA. Koninklijke Philips Electronics N.V. is the ultimate parent of the assignee of record Philips Electronics North America Corporation, a Delaware corporation having an office and a place of business at 1251 Avenue of the Americas, New York, NY 10020-1104. Philips Electronics North America Corporation intends to further assign this application to Koninklijke Philips Electronics N.V.

2. RELATED APPEALS AND INTERFERENCES

Appellant and the undersigned attorney are not aware of any other appeals or interferences which will directly affect or be directly affected by or having a bearing on the Board's decision in the pending appeal.

3. STATUS OF CLAIMS

Claims 1-33 have been cancelled. Claims 34-43 are currently pending in the application and are the claims on appeal. See, the Appendix. Claims 34-43 stand finally rejected under 35 U.S.C. §102(b) as being anticipated by European Patent No. 0 062 133 A2 to *Levine*.

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4. STATUS OF AMENDMENTS

A request for reconsideration under 37 C.F.R. §1.116 involving (1) an amendment of claim 40 to overcome an objection to a grammatical error within claim 40, and a 35 U.S.C. §112, ¶2 as being indefinite, and (2) remarks supporting an allowance of claims 34-43 over *Levine* was filed on 07/14/2003, but was not entered into the application at the time of the filing of the request for reconsideration.

5. SUMMARY OF THE INVENTION

The claimed invention employs a display 102, a cursor controller 110, and a user interface 106 as illustrated in FIG. 1. Cursor controller 110 is connected to display 102 to facilitate a displacement of a cursor 108 represented on display 102. User-interface 106 is coupled to cursor controller 110 to sense a user-desired manipulation of cursor 108 based on a time period of an application of force on user-interface 106 by the user. See, *U.S. Patent Application Serial No. 08/704,400* at page 4, lines 6-28.

As illustrated in FIG. 2, the displacement speed of cursor 108 is dependent upon the time period of the application of force on user-interface 106 by the user. Specifically, a voltage  $V_1$ , a voltage  $V_2$  and a time  $t_1$  are predetermined in advance of the initial application of the force on user-interface 106 by the user whereby the displacement speed of cursor 108 is variable within a first speed range (0 to  $V_1$ ) during a pre-determined time

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interval (0 to  $t_1$ ), and the displacement speed of cursor 108 transitions from the first speed range (0 to  $V_1$ ) to a second speed range ( $V_1$  to  $V_2$ ) if and only if the time period of the application of force on user-interface 106 by the user exceeds time  $t_1$ . See, U.S. Patent Application Serial No. 08/704,400 at page 4, line 31 to page 6, line 11. Consequently, upon an initial application of force on the user-interface 106 by the user, the actual displacement speed of cursor 108 is within the first speed range (0 to  $V_1$ ). If the total time period of the application of force on user-interface 106 by the user is less than time  $t_1$ , then the displacement of cursor 108 is disabled prior to time  $t_1$  whereby the displacement speed of cursor 108 never transitions from the first speed range (0 to  $V_1$ ) to the second speed range ( $V_1$  to  $V_2$ ). Conversely, if the total time period of the application of force on user-interface 106 by the user exceeds time  $t_1$ , then the displacement speed of the cursor 108 transitions from the first speed range (0 to  $V_1$ ) to the second speed range ( $V_1$  to  $V_2$ ) upon the application of force on user-interface 106 by the user exceeding time  $t_1$ .

In one embodiment, user-interface 106 employs a pick-up 302, converter 304, processor 306, and converter 308 as illustrated in FIG. 3 to generate one or more timing-signals indicative of the user-desired manipulation of cursor 108. A number of timing signals for defining the predetermined time interval is pre-specified in advance of the initial application of the force on user-interface 106 by the user whereby the displacement

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speed of cursor 108 is variable within the first speed range (0 to  $V_1$ ) when a total generation of the timing signal(s) is less than the pre-specified number, and the displacement speed of cursor 108 is transitions form the first speed range (0 to  $V_1$ ) to a second speed range ( $V_1$  to  $V_2$ ) if and only if a total generation of the timing signal(s) equals or exceeds the pre-specified number. See, *U.S. Patent Application Serial No. 08/704,400* at page 6, line 24 to page 8, line 20. Consequently, upon an initial application of force on the user-interface 106 by the user, the actual displacement speed of cursor 108 is within the first speed range (0 to  $V_1$ ). If the total time period of the application of force on user-interface 106 by the user is less than time  $t_1$  as indicated by the total number of generated timing signals being less than the pre-specified number, then the displacement of cursor 108 is disabled prior to time  $t_1$  whereby the displacement speed of cursor 108 never transitions from the first speed range (0 to  $V_1$ ) to the second speed range ( $V_1$  to  $V_2$ ). Conversely, if the total time period of the application of force on user-interface 106 by the user exceeds time  $t_1$  as indicated by the total number of generated timing signals equaling or exceeding the pre-specified number, then the displacement speed of the cursor 108 transitions from the first speed range (0 to  $V_1$ ) to the second speed range ( $V_1$  to  $V_2$ ) upon the total number of generated timing signals equaling the pre-specified number.

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6. ISSUE

Whether claims 34-43 are patentable over *Levine*.

7. GROUPING OF CLAIMS

The claims should be considered in two (2) separate claim groups:

Claim Group I includes independent claim 34.

Claim Group II includes dependent claims 35-39, independent claim 40, and dependent claims 41-43.

8. ARGUMENTS

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The Appellant respectfully traverses the rejections of claims 34-

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43, because *Levine* fails to show in complete detail the following limitations of claims 34 and 50:

1. " wherein, upon a predetermined time interval after the initial application of force on said user-interface by the user, the actual displacement speed of the cursor is variable within a second speed range" as recited in independent claim 34; and
2. "an actual displacement speed of the cursor as represented by said display is variable within a first speed range when a total generation of timing signals is less than a pre-specified number" and "the actual displacement speed of the cursor is variable within a second speed range when the total generation of timing signals is equal to or less than the pre-specified number" as recited in independent claim 40.

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Specifically, *Levine* teaches a dynamic calculation of a speed range B having a starting point A and an ending point C, and a speed range D-E having a starting point of C. The dynamic calculation of speed range B is dependent upon the total depression time  $t$  of cursor button 1 as illustrated in FIG. 1 of *Levine*, and the dynamic calculation of speed D-E is dependent upon the summation of a pulse duration  $t_1$  generated by multivibrator 8 and a reaction time  $t_r$  associated with the user. See, *Levine* at page 4, line 10 to page 6, line 13.

To this end, *Levine* teaches away from a predetermination (i.e., pre-calculation) of speed range B and its associated time interval and a predetermination (i.e., pre-calculation) of speed range D-E and its associated time interval by teaching a dynamic calculation of a ramp voltage  $V_C$ , a correction voltage  $\Delta V_C$  and an overshoot voltage  $\Delta V_e$  in accordance with the following equations [1]-[3]:

$$V_C = \left( \frac{V_1}{(R_1)(C)} \right) t \quad [1]$$

$$\Delta V_C = - \left( \frac{(V_1)(t_1)}{(R_2)(C)} \right) \quad [1]$$

$$\Delta V_e = \left( \frac{(V_1)(t_1)}{(R_1)(C)} \right) \quad [1]$$



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Thus, upon the depression of cursor button 1, the position of starting point A of the ramp voltage  $V_C$  is 0 seconds and speed range B of the ramp voltage  $V_C$  is dynamically calculated thereafter as a function of the cursor depression time  $t$ . Clearly, the time interval of speed range B cannot be determined prior to and during the depression of cursor button 1, because the cursor depression time  $t$  is unknown prior to and during the depression of cursor button 1. *Levine* therefore teaches away from a predetermined time interval for speed range B, and in particular, a predetermined time interval for speed range B that is defined by a pre-specified number of generated timing signals during the depression of cursor button 1.

Furthermore, while the calculation of correction voltage  $\Delta V_C$  is predetermined because the pulse duration  $t_1$  of multivibrator 8 is known prior to a depression of the cursor button 1, the dynamic calculation of overshoot voltage  $\Delta V_e$  is a function of the user reaction time  $t_r$ . Clearly, the time interval of speed range D-E cannot be determined prior to the release of the cursor button 1, because the user reaction time  $t_r$  is unknown prior to the release of cursor button 1. *Levine* therefore teaches away from a predetermined time interval for speed range D-E, and in particular, a predetermined time interval for speed range D-E that is defined by a pre-specified number of generated timing signals prior to the release of cursor button 1.

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Examiner Brier's interprets *Levine* to teach the first speed range and the second speed range as required by independent claims 34 and 40 as being defined by a midpoint of a slope of speed region B that corresponds to the predetermined time interval as required by independent claims 34 and 40. This interpretation of *Levine* is without merit, because, even if it is assumed that the slope midpoint of speed region B corresponds to a time interval for the first speed range, the slope midpoint of speed region B is not determined prior to and during the depression of cursor button 1. It is dynamically calculated during the depression of cursor button 1 with a final calculated value occurring upon a release of cursor button 1. This point is further supported by the following

TABLE 1 where  $\left(\frac{V_1}{(R_1)(C)}\right)$  from equation [1] is assumed to be 0.1.

TABLE 1

Depression Time t (seconds)	Ramp Voltage $V_C$ (volts)	Slope Midpoint (volts)
1	0.10	0.05
2	0.20	0.10
3	0.30	0.15
4	0.40	0.20
5	0.50	0.25
6	0.60	0.30
7	0.70	0.35
8	0.80	0.40
9	0.90	0.45
10	1.00	0.55

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Unequivocally, the slope midpoint of speed range B is not predetermined because its value depends upon the actual depression time.

Examiner Brier has further asserted that the slope midpoint of speed range B is predetermined, because equation [1] is predetermined. This assertion would be sound if one and only if each variable of equation [1] was determined prior to a depression of cursor button 1 whereby the slope midpoint of speed range B would be predetermined. However, while the R1, C and V1 variables of equation [1] are known prior to depression of cursor button 1, this assertion by Examiner Brier is without merit because Levine teaches the depression time t variable is unknown prior to and during the depression of cursor button 1. The slope midpoint of speed range B is therefore unknown (i.e., not predetermined) prior to the depression of cursor button 1.

Withdrawal of the rejection of independent claims 34 and 40 under 35 U.S.C. §102(b) as being anticipated by *Levine* is therefore respectfully requested.

Claims 35-39 depend from independent claim 34. Therefore, dependent claims 35-39 include all of the elements and limitations of independent claim 34. It is therefore respectfully submitted by the Appellant that dependent claims 35-39 are allowable over *Levine* for at least the same reason as set forth herein with respect to independent claim 34 being allowable over *Levine*. Withdrawal of the rejection of dependent claims 35-39 under 35 U.S.C. §102(b) being unpatentable over *Levine* is therefore respectfully requested.

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Claims 41-43 depend from independent claim 40. Therefore, dependent claims 41-43 include all of the elements and limitations of independent claim 40. It is therefore respectfully submitted by the Appellant that dependent claims 41-43 are allowable over *Levine* for at least the same reason as set forth herein with respect to independent claim 40 being allowable over *Levine*. Withdrawal of the rejection of dependent claims 41-43 under 35 U.S.C. §102(b) being unpatentable over *Levine* is therefore respectfully requested.

Dated: November 18, 2003

Respectfully submitted,  
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APPENDIX

34. A data processing system, comprising:

a display;

a cursor controller connected to said display for displacement of a cursor represented on said display; and

a user-interface coupled to said cursor controller, said user-interface operable to sense a user-desired manipulation of the cursor based on a time period of an application of force on said user-interface by a user,

wherein a displacement speed of the cursor as represented by said display is dependent upon the time period of the application of force on said user-interface by the user,

wherein, upon an initial application of force on said user-interface by the user, the actual displacement speed of the cursor is variable within a first speed range, and

wherein, upon a predetermined time interval after the initial application of force on said user-interface by the user, the actual displacement speed of the cursor is variable within a second speed range.

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35. The data processing system of claim 34,  
wherein, during the time period of the application of force on said user-interface  
by the user, at least one timing signal indicative of a sensing of the user-desired  
manipulation of the cursor is generated;  
wherein the actual displacement speed of the cursor is within the first speed range  
when a total generation of timing signals is less than a pre-specified number; and  
wherein the actual displacement speed of the cursor is within the second speed  
range when the total generation of timing signals is equal to or greater than the pre-  
specified number.
36. The data processing system of claim 35, wherein the at least one timing signal  
includes at least one vertical timing signal indicative of a vertical speed component of the  
user-desired manipulation of the cursor.
37. The data processing system of claim 35, wherein the at least one timing signal  
includes at least one horizontal signal indicative of a horizontal speed component of the  
user-desired manipulation of the cursor.

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38. The data processing system of claim 34, wherein, during the activation of said user-interface, said user-interface includes:

means for generating at least one timing signal indicative of the user-desired manipulation of the cursor; and

means for counting a total generation of timing signals.

39. The data processing system of claim 38,

wherein the actual displacement speed of the cursor is within the first speed range when the total generation of timing signals is less than a pre-specified number, and

wherein the actual displacement speed of the cursor is within the second speed range when the total generation of timing signals is equal to or greater than the pre-specified number.

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40. A data processing system, comprising:
- a display;
  - a cursor controller connected to said display for displacement of a cursor represented on said display; and
  - a user-interface coupled to said cursor controller, said user-interface operable to sense a user-desired manipulation of the cursor based on a time period of an application of force on said user-interface by a user,
- wherein, during the time period of the application of force on said user-interface by the user,
- at least one timing signal indicative of the user-desired manipulation of the cursor as sensed by said user-interface is generated,
  - an actual displacement speed of the cursor as represented by said display is variable within a first speed range when a total generation of timing signals is less than a pre-specified number, and
  - the actual displacement speed of the cursor is variable within a second speed range when the total generation of timing signals is equal to or greater than the pre-specified number.



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41. The data processing system of claim 40, wherein the pre-specified number defines a predetermined time interval during the activation of said user-interface.

42. The data processing system of claim 40, wherein the at least one timing signal includes at least one vertical timing signal indicative of a vertical speed component of the user-desired manipulation of the cursor.

43. The data processing system of claim 40, wherein the at least one timing signal includes at least one horizontal signal indicative of a horizontal speed component of the user-desired manipulation of the cursor.